CLAIMS

WHAT IS CLAIMED IS:

- 1. A computer system for use with web-based applications comprising:
 - a web browser application;
 - at least one web form running on the web browser;
 - a web server capable of processing Java code and web-based forms;
- a storage schema coupled to said computer system, wherein said web server is used for manipulating data with rules compiled in said web browser from said storage schema; and

files containing manipulation rules in said storage schema.

- 2. A computer system according to claim 1, wherein the web server comprises an application for compiling at least one Java page including manipulation rules from the storage schema.
- 3. A computer system according to claim 1, wherein the web server calls a plurality of Java servlet methods including getManipulationSet(String ApplicationName, String Application Version, String Application User) method and doManipulation(String tag, String value) method.
- 4. A computer system according to claim 1, wherein Java servlet methods are compiled into byte code files when the web server is started.

- 5. A computer system according to claim 4, wherein the web server calls a plurality of Java servlet methods including getManipulationSet(String ApplicationName, String Application Version, String Application User) method.
- 6. A computer system according to claim 5, wherein the web server calls a Java servlet method doManipulation(String tag, String value).
- 7. A computer system according to claim 1, wherein said manipulation rules comprise at least three main views of hierarchical organized functions.
- 8. A computer system according to claim 7, wherein the web server calls a plurality of Java servlet methods including getManipulationSet(String ApplicationName, String Application Version, String Application User) method and doManipulation(String tag, String value) method.
- 9. A computer system according to claim 7, comprising a storage schema in the format of an Oracle database.
- 10. A computer system according to claim 7, wherein said manipulation rules are represented in the form of Lightweight Directory Access Protocol.
- 11. A computer system according to claim 4, further comprising an Oracle database

and a table-based system of rules organized into three hierarchically organized views.

- 12. A computer system according to claim 4, wherein said storage schema is represented by Lightweight Directory Access Protocol and includes three hierarchically organized views.
- 13. A web server system comprising:

a plurality of web browser applications;

means for performing manipulation service on data submitted by said at least one of the web browser applications;

means for processing web forms;

means for storing and retrieving a plurality of manipulation rules for performing said manipulation service; and

means for compiling manipulation rules into said at least one web application in order to perform said manipulation service.

- 14. A web server system according to claim 13, comprising means for initiating a recompiling of said at least one web application.
- 15. A web server system according to claim 13, wherein said means for storing and retrieving manipulation rules comprises an Oracle database.
- 16. A web server system according to claim 13, wherein said manipulation rules are

stored in a schema in the form of Lightweight Directory Access Protocol.

- 17. A web server system according to claim 14, wherein said Oracle database contains a table-based system of rules organized into at least three hierarchically organized views.
- 18. A web server system according to claim 14, further comprising a schema in the form of Lightweight Directory Access Protocol and a table-based system of manipulation rules organized into at least three hierarchically-organized views.
- 19. A web server system according to claim 17, wherein said Oracle database stores manipulation functions stored as hierarchically organized views that are dynamically updateable by an external administrator.
- 20. A web server system according to claim 18, wherein said storage schema represented by Lightweight Directory Access Protocol represents manipulation functions stored as hierarchically-organized views that are dynamically updateable by an external administrator.
- 21. A web server system according to claim 13, comprising means for compiling Java servlet methods.
- 22. A web server system according to claim 21, comprising means to initiate a recompile of a web server in order to load updated manipulation rules.

23. A computer-readable medium with instructions executable by a processor for providing a manipulation application service for web-based applications, the medium comprising instructions to:

couple a service request from a data device to a web server, the request including data to be validated;

generate a service session instruction, the service session instruction based at least in part on the service request;

send the service session instruction to one or more web servers, the service session instruction corresponding to one or more data manipulation requests from said customer data device;

compile at least one Java Server Page based on stored manipulation rules in a database; and

send a manipulation service response to the data device, wherein the manipulation service response is based on the service request.

24. A method of providing manipulation data service with a web-based computer system comprising the steps of:

calling at least one Java server page from a web application;

compiling said at least one Java server page at a web server;

retrieving stored manipulation rules from a centralized storage mass coupled to said web server;

inputting data to a web form;

submitting the web form to the web browser;

manipulating data provided from said web application in accordance with said manipulation rules.

- 25. A method according to claim 24, further comprising the step of updating at least a portion of compiled manipulation rules by recompiling at least one Java server page.
- 26. A method according to claim 24, comprising the step of calling a Java servlet method including getManipulationSet(String ApplicationName, String Application Version, String Application User) method and doManipulation(String tag, String value) method.
- 27. A method according to claim 24, comprising the step of loading at least portion of said manipulation rules into objects.
- 28. A method according to claim 26, comprising the step of said Java server page directing JavaScript functions in accordance with said manipulation rules.
- 29. A method according to claim 28, comprising the step of periodically recompiling at least one Java server page.
- 30. A method according to claim 28, comprising the steps of deleting class files and

recompiling at least one Java server page.

- 31. A method according to claim 28, comprising the step of loading updated manipulation rules.
- 32. A method according to claim 24, comprising the step of sending a manipulation result to the web application.
- 33. A method according to claim 28, comprising the step of sending a manipulation result to a user of the web application.
- 34. A method for validating data with a web server system, the method comprising:
 a step for sending a data manipulation service request from a web user;
 a step for generating a manipulation service instruction, the service instruction
 based at least in part on the manipulation service request from said web user;
 a step for compiling a Java server page containing Java files into class files;
 a step for reading data manipulation information from a data schema;
 a step for configuring the data manipulation information in the memory of a running program;
- a step for directing a JavaScript function in order to execute a manipulation function in accordance with the information read from said data schema.
- 35. A method according to claim 34, further comprising a step of a Java server page

directing JavaScript functions in accordance with said manipulation information.

- 36. A method according to claim 35, further comprising a step of recompiling at least one Java server page with updated manipulation information.
- 37. A method according to claim 34, further comprising the step of deleting at least a portion of the class files and recompiling at least one Java server page.
- 38. A method according to claim 34, further comprising the step of loading updated manipulation information in the memory of the program.